

GE - Transportation

100 Years . . . Growing Forward

JOHN DINEEN



A Newcomen Address



THE NEWCOMEN SOCIETY OF THE UNITED STATES is a tax-exempt, educational foundation founded in 1923 for the study and recognition of achievement in American business and the society it serves. The Society's headquarters are located in Exton, Pennsylvania, 30 miles west of Center City, Philadelphia. National membership is comprised of many of the nation's top leaders in business, industry, education, the professions, government and the military.

The purposes of The Newcomen Society are to:

- Preserve, protect and promote the American free enterprise system.
- Honor corporate entities and other organizations which contribute to or are examples of success attained under free enterprise, and to recognize contributions to that system.
- Publish and record the histories and achievements of such enterprises and organizations.
- Encourage and stimulate original research and writing in the field of business history through a program of academic awards, grants and fellowships.

The Society's name perpetuates the life and work of Thomas Newcomen (1663-1729), the British pioneer whose invention of the atmospheric steam engine in 1712 led to the first practical use of such a device to lift water out of mines. The resulting tremendous increase in mine productivity (the engine replaced the work of 50 mules and 20 men working around the clock) facilitated the birth of the industrial revolution. Indeed, Newcomen is frequently referred to as the "father of the industrial revolution"—its first entrepreneur. The Newcomen engines remained in use from 1712 to 1775, and helped pave the way for advancements 50 years later by the world-famous James Watt of Scotland, whose innovations led to widespread use of steam power in factories and in transportation.

Since its founding, The Newcomen Society has honored more than 2,500 organizations and institutions. The Society publishes the histories of the organizations it recognizes, usually following luncheons or dinners hosted by one of many volunteer committees organized throughout the U.S. These histories are distributed to Society members, as well as 3,300 public and private libraries for permanent archival storage in the support of the study of business history.

Newcomen Society Honorees are selected by the Board of Trustees from nominations received from the volunteer committees. Meetings are held each year in all parts of the country. Members and their guests, as well as guests of the Honorees, are invited to attend these historic events.

The Society maintains several awards in the field of business history: the Newcomen-Harvard Postdoctoral Fellowship, the Newcomen-Harvard Book Award and Article Awards in Business History, the Dissertation Fellowship in Business and American Culture, and the Newcomen Prize awarded by the Business History Conference.



“Talking about change is simple. Forcing and embracing change is tough.”

— JOHN DINEEN

8 8

This address, celebrating the history of GE - Transportation, was delivered at a “2007 Pennsylvania Meeting” of The Newcomen Society of the United States held in Erie, Pennsylvania, when GE - Transportation’s President & CEO, Mr. John Dineen, served as guest of honor and speaker, on April 19th, 2007.

GE - Transportation

100 Years . . . Growing Forward

JOHN DINEEN

PRESIDENT & CEO
GE - TRANSPORTATION
ERIE, PENNSYLVANIA



THE NEWCOMEN SOCIETY OF THE UNITED STATES
EXTON
2007

Newcomen Publication Number 1615



Copyright, 2007
GE - TRANSPORTATION



*Permission to abstract is granted
provided proper credit is allowed.*



*The Newcomen Society, as a body,
is not responsible for opinions
expressed in the following pages.*



First Printing: January 2008



PUBLISHED BY THE NEWCOMEN SOCIETY OF THE
UNITED STATES. PRINTED AND BOUND BY
ENSINGER PRINTING SERVICE IN THE UNITED STATES.



INTRODUCTION OF MR. JOHN DINEEN, ON APRIL 19TH, 2007, BY MR. JACOB A. ROUCH, PRESIDENT AND CEO OF THE ERIE REGIONAL CHAMBER AND GROWTH PARTNERSHIP.

GOOD evening. I am going to go out on a limb and assume that everybody gathered tonight has heard of General Electric and GE - Transportation. You may have pre-conceived notions of what happens at GE - Transportation. I am here to tell you, that the images in your head probably are not entirely accurate.

GE, with 100 years of presence in Lawrence Park, has changed, is changing, and will likely always change.

Over the years, many different products have been manufactured at the 400 acre plant – from refrigerators and trolley cars, to tanks



JACOB A. ROUCH
PRESIDENT AND CEO
ERIE REGIONAL CHAMBER AND GROWTH PARTNERSHIP

that were used in World War II, and of course locomotives. Today, new products are being born there. Some you have heard of, others you will hear about tonight.

There are lessons that we can all learn from GE. The most important is that change, though sometimes uncomfortable, is a key ingredient to success. Change, or be changed. Control your destiny, or others will control it for you.

The person who heads GE - Transportation in its Centennial Year knows a few things about change. When John Dineen joined the business in the summer of 2005, annual revenues at GE - Transportation were about 3-billion dollars. Today, revenues are nearly 4.5 billion dollars, a Fortune 500 Company in its own right.

GE - Transportation serves the rail, mining and energy industries and has customers all over the world. Products and services include freight and passenger locomotives, diesel engines for industrial applications, motorized systems for off-highway vehicles and drills, and gearing systems for wind turbines. The business employs 4,500 workers in Erie, another 850 workers in Grove City, and a total of 9,500 employees around the world.

John joined GE in 1986 as a Telecommunications Engineer in Rockville, Maryland. He has held a variety of assignments at GE, including General Manager of the Power Equipment business in Plainville, Connecticut; General Manager of the Meter business in Somersworth, New Hampshire; General Manager of the Microwave and Air-conditioning Businesses in Louisville, Kentucky; Manager of Finance for GE Asia in Hong Kong; President of GE Plastics in Tokyo; and Vice President and General Manager of Plastics - Resins at GE Advanced Materials.

It's not that John cannot hold a job. He just happens to like change. John, is married to Gina, an ex-GE executive who has taken leave to manage the Dineen household. They have two children, Hannah and Jack. It is my pleasure and honor to introduce to you, the President and CEO of GE - Transportation, MR. JOHN DINEEN.



Members of The Newcomen Society and guests:

JAKE, thank you for the very kind introduction. After listening to you list my GE assignments, I was beginning to think that maybe I really can't hold a job. I now have one that I love, in a place that me and my family thoroughly enjoy. Erie has been very welcoming to us.

I want to thank the Newcomen Society for recognizing our business tonight. It is particularly meaningful as we celebrate our 100th year in Erie. The changes taking place at GE are very real, and they are happening very fast.



JOHN DINEEN
PRESIDENT & CEO
GE - TRANSPORTATION

Earlier this year, I asked my team for a summary of what we accomplished in 2006. When you are busy changing, busy winning and just plain busy. It is easy to lose track of everything that was accomplished.

The state of the business is very healthy, though we remind ourselves to never become complacent. We moved record amounts of products out of Erie, exporting many of them around the world. 885 locomotives, 120 locomotive modernization kits, nearly 750 Off Highway Vehicle propulsion systems, more than 200 wind gear boxes, and more than 2,100 diesel engines from our Grove City plant. The financials in 2006 were strong as well, \$4.2 billion in revenue and \$780 million in op profits.

This little engine is starting to get the attention of some very influential people, guys like Nick Heyman of the Prudential Equity Group who follow GE. He and about 15 other investors came by our plant this past December to see the new technologies



THE EVOLUTION SERIES SERVES AS GE - TRANSPORTATION'S MOST FUEL EFFICIENT AND ENVIRONMENTAL FRIENDLY LOCOMOTIVE IN ITS PRODUCT PORTFOLIO.

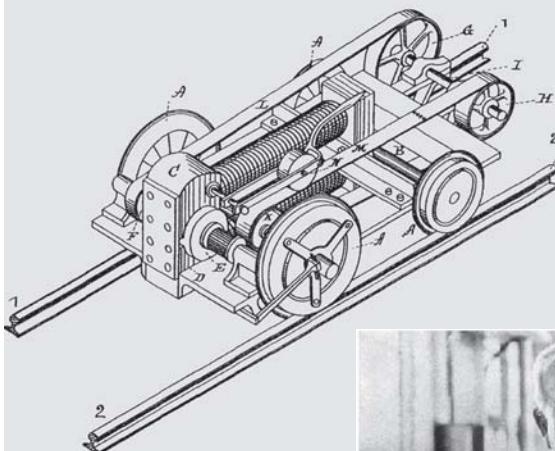
(No Model.)

T. A. EDISON.

LOCOMOTIVE FOR ELECTRIC RAILWAYS.

No. 446,667.

Patented Feb. 17, 1891.



INGENIOUS INVENTOR THOMAS EDISON (RIGHT) FOUNDED THE GENERAL ELECTRIC COMPANY IN 1892. EDISON'S EARLY DESIGNS (ABOVE) LAUNCHED A CENTURY OF LOCOMOTIVE ENGINEERING IN ERIE, PENNSYLVANIA.

that we are developing and they saw in detail our globalization strategy and how we plan to win significant business in markets that we have never tried selling in.

So how did we get here? Quite simply by standing on the shoulders of giants. Many great leaders have built a solid foundation of growth at this business. In 1907, Thomas Edison was busy changing his still young business, the General Electric Company. As GE grew, Edison needed more factories to build his products.



FROM ITS EARLY BEGINNINGS, GE'S ERIE PLANT HAS GROWN TO ENCOMPASS CLOSE TO 400 ACRES, 3.8 MILLION SQUARE FEET OF MANUFACTURING SPACE AND 20 MILES OF RAILROAD TRACK (ABOVE AND BELOW).



One of the locations that he chose was Lawrence Park. It would become a long-term investment that would pay dividends a century later, dividends that even Edison could never imagine.

While it might look like a 100-year-old factory on the outside, it really is a technology campus and lean/modern, manufacturing facility. Think about it, we have 1,500 engineers around the world, including 600 in Northwest Pennsylvania, working to develop products. So while the community often focuses on our manufacturing capabilities, which we are proud of, remember the technology that is our true driving force.

There are many similarities between 1907 and 2007. Edison pushed himself and his employees to innovate, to change, and to grow. That spirit exists 100 years later as we ask all employees to live our growth traits. So what do they mean?



300,000-POUND LOCOMOTIVES FLOAT ON AIR CUSHIONS IN GE - TRANSPORTATION'S MANUFACTURING PLANT.



GE'S LOCOMOTIVES ARE TECHNOLOGY AND ENGINEERING MARVELS.

GE means imagination at work and the courage to take risks on both people and ideas. We ask our employees to develop expertise in a function or domain, using depth as a source of confidence to drive change. We require them to be clear thinkers to simplify strategy into specific actions, make decisions and communicate priorities. We are also looking for inclusiveness as a mind set among our team members. And last but not least: GE - Transportation seeks individuals with an external focus that defines success in market terms.

When you do these things, you win. Talking about change is simple. Forcing and embracing change is tough, even at GE. 20 years ago, we sold locomotives to China. We built them, our

customer bought them, we put them on ships, and our customers ran them. It was the business model for that time. Today, that model does not work. The only way our business will succeed is by developing strategic partnerships in the country where we want to market our technology and services.

If we look back a couple of decades, our business was very good at winning, at least based on how we defined the markets that we served. We defined our customers mainly as North American railroads that bought locomotives. That is small, and volatile world in which to play. We didn't look at other products that we could offer North American railroads, we didn't look at other industries where our technology could be applied, and we certainly did not aggressively try to win in markets outside of North America. Even though we felt good about where we were winning, we should have felt bad about thinking small. In short, we had to get out of our comfort zone.

Take our flagship product, the Evolution Series locomotive. It was developed to meet a U.S. environmental regulation. The



GE - TRANSPORTATION'S MOST ADVANCED AND CLEANEST LOCOMOTIVE IN HISTORY IS THE EVOLUTION HYBRID SERIES TO ENTER THE MARKET IN 2010.



GE - TRANSPORTATION'S ERIE PLANT IS A CITY WITHIN A CITY. IT PROVIDES CAREER OPPORTUNITIES FOR 4,500 EMPLOYEES.

good news is that we made the big bet and invested for the long-term, even when the North American market was in a downward spiral. But because we took a big chance, because we invested \$400 million, and because our technology broke a paradigm and offered fuel savings, in addition to the environmental benefit, customers bought it faster than any other new locomotive ever offered.

Evolution offered a world of opportunities, but not if we offered the same design or sold the same way that we sold it in North America. We lead with technology, but customized it for key markets, now we have opportunities that we have realized and more that we are pursuing, all over the world. The reality is, if we would have been thinking more globally as we developed the North American locomotive, we could have gone faster around the world.

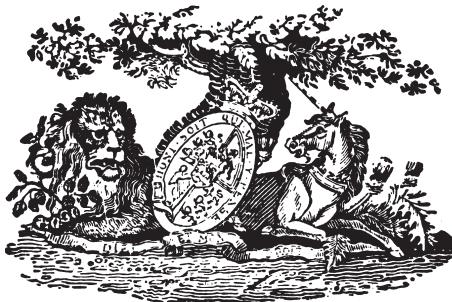
The other place where we have diversified is in the type of products we offered. All of them have some connectivity to our core market, they are either products that our customers were buying, or they were born off of technology that we developed on our locomotives. Again, this was unusual for us, but it is where the “Imagination” growth trait comes alive.

Looking forward, what do we see? A faster, flatter world, one where the companies who differentiate, especially with technology, will win. A world where there is more regulatory pressure and a world with more competitors who can disrupt your business model. What can you do? Invest in people and invest in the future.

That's what we are trying to do when we talk about investing in future generations. The [\$15 million] grant that we announced today is meant to be a starting point in helping kids succeed in school, in math and science, so that our community can remain strong and vibrant.

We also want to celebrate and invest in our employees. Hopefully, you have seen a TV commercial for our business that is now on the air. Tonight, I want to show you what happened behind the scenes as the film crew was methodically setting up for their shots. Our employees were key to helping us make the TV commercial, but more importantly, they are the key to our future success. Before we roll this video, I want to express my sincere thanks to the Newcomen Society for recognizing GE this evening. It is a testament to the hard work of all of our employees in the region. Thank you.





“Were American Newcomen to do naught else, our work is well done if we succeed in sharing with America a strengthened inspiration to continue the struggle towards a nobler Civilization—through wider knowledge and understanding of the hopes, ambitions, and deeds of leaders in the past who have upheld Civilization’s material progress. As we look backward, let us look forward.”

— CHARLES PENROSE
(1886-1958)

Senior Vice-President for North America
*The Newcomen Society
for the study of the history of
Engineering and Technology
(1923-1957)*
Chairman for North America
(1958)



This statement, crystallizing a broad purpose of the Society, was first read at the Newcomen Meeting at New York World’s Fair on August 5, 1939, when American Newcomen were guests of the British Government.

“Actorum Memores simul affectamus Agenda”

“Looking forward, what do we see? A faster, flatter world. One where the companies which differentiate, especially with technology, will win.”

— JOHN DINEEN



THE NEWCOMEN SOCIETY OF THE UNITED STATES * FOUNDED IN 1923 * 211 Welsh Pool Road * Suite 240 * Exton * PA * 19341

phone 610 363-6600 • 800 466-7604 * fax 610 363-0612 * web newcomen.org * email info@newcomen.org